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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/666,577	09/22/2003	Zhichen Xu	200300594-1	8618

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EXAMINER

LEROUX, ETIENNE PIERRE

ART UNIT	PAPER NUMBER
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2161

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/31/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/666,577	Applicant(s) XU ET AL.	
	Examiner Etienne P. LeRoux	Art Unit 2161	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-21,23-35,40,41 and 43-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-21,23-35,40,41 and 43-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 9/22/2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Status:

Claims 1, 4-21, 23-35, 40, 41 and 43-45 are pending; claims 2, 3, 22, 36-39 and 42 are canceled. Claims 1, 4-21, 23-35, 40, 41 and 43-45 are rejected as detailed below.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 1 is rejected under 35 U.S.C. 101 because a data model representing semantic information associated with objects is descriptive material per se and is thus nonstatutory. The descriptive material is nonfunctional because claim 1 does not include data structures or computer programs which impart functionality when employed as a computer component. A data structure is a physical or logical relationship among data elements designed to support specific data manipulation functions.¹ The claimed “object identifier” and the claimed “relation identifier” are not (emphasis added) data structures per the IEEE Standard Dictionary because above identifiers do not support specific data manipulation functions.

Furthermore, the claimed “relation identifier identifying a relationship between the first object and the second object” is merely an abstract idea because no practical application of such relationship is claimed nor can a practical application be ascertained from the specification. The claimed relationship between the first object and the second object is not useful, concrete or tangible such that the relationship can be applied in a real world application.

A data model representing semantic information associated with objects is an abstract idea and therefore, is nonstatutory.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4, 6-9, 11-21, 23-35, 40, 41 and 43-45 are rejected under 35 U.S.C. 102(b) as being anticipated by US Pat No 6,260,040 issued to Kauffman et al (hereafter (Kauffman), as best examiner is able to ascertain.

Claim 1, 9, 10, 17-19:

Hoshino discloses:

a first object identifier identifying a first object stored in the file system wherein the first object comprises a first file stored in the file system [Fig 1, 31a]

a second object identifier identifying a second object stored in the file system [Fig 1, 31b]

the second object being related to the first object [cool 6, lines 15-35]

wherein the second object comprises a relation identifier identifying a relationship between the first object and the second object [arrows between versions, Fig 1, col, 6, lines 20-25]

¹ The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed.1993)

Art Unit: 2161

Claim 4:

Hoshino discloses wherein the relation identifier is a semantic of the first file [col 5, lines 40-50]

Claim 6:

Hoshino discloses wherein the relation identifier comprises a property of the first object and the second object comprises a value of the property for the first object [relationship between versions, col 6, lines 15-30]

Claim 7:

Hoshino discloses wherein the data model represents a function operable to be performed in the semantic file system [col 6, lines 15-30]

Claim 8:

Kauffman discloses wherein the function is associated with one or more of generating a view of the objects stored in the semantic file system, restricting access to an object in the file system, searching in the semantic file system, performing an action based on at least one predetermined condition, and performing archival functions in the semantic file system [Fig 1]

Claim 11:

Hoshino discloses wherein the dependency is associated with a hierarchal file space [Fig 12]

Claim 12:

Art Unit: 2161

Hoshino discloses wherein the dependency is associated with one or more users or one or more applications [Fig 24]

Claim 13:

Hoshino discloses wherein the dependency is used to generate file space views for the one or more users or for the one or more applications [Fig 16]

Claim 14:

Hoshino discloses wherein the relation identifier identifies the second object as including property semantic information for the first object, the property semantic information including one or more of statistical information for the first object and a description of the first object [col 6, lines 15-30]

Claims 15 and 16:

Kauffman discloses wherein the relation identifier identifies the second object as including context semantic information for the first object, the context semantic information being associated with access patterns for the first object [col 6, lines 15-30]

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

Art Unit: 2161

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hoshino in view of US Pat No 5,854,749 issued to Kellams et al (hereafter Kellams), as best examiner is able to ascertain.

Claim 5:

Hoshino discloses the elements of claim 1 as noted above but does not disclose wherein the data model includes a tuple in a format and order comprising: the first object identifier, the relation identifier, the second object identifier. Kellams discloses that data tuples or records have multiple fields [col 7, lines 20-25]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hoshino to include wherein the data model includes a tuple in a format and order comprising: the first object identifier, the relation identifier, the second object identifier based on the disclosure of Kellams for the purpose adopting a primary data structure of the well-known Oracle database [col 7, lines 20-25].

Regarding the rejection of claims 20, 21, 23-35, 40, 41 and 43-45, examiner maintains such claims can be rejected on a similar basis to the above claim rejections.

Response to Arguments

Applicant's arguments filed 1/10/2007 have been fully considered but they are moot based on above new grounds of rejection.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Etienne P. LeRoux whose telephone number is (571) 272-4022. The examiner can normally be reached Monday through Friday between 8:00 am and 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Apu Mofiz can be reached on (571) 272-4080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Etienne LeRoux

1/29/2006

Etienne P. LeRoux
primary examiner